

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 October 2005 (27.10.2005)

PCT

(10) International Publication Number
WO 2005/100395 A3

(51) International Patent Classification:
C07K 14/54 (2006.01) C12N 15/62 (2006.01)

(21) International Application Number:
PCT/EP2005/003888

(22) International Filing Date: 13 April 2005 (13.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04008881.7 14 April 2004 (14.04.2004) EP

(71) Applicant (for all designated States except US): **F. HOFFMANN-LA ROCHE AG** [CH/CH]; Grenzacherstrasse 124, CH-4070 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HERRMANN, Andreas** [DE/DE]; Löwenburgstrasse 26, 50939 Köln (DE). **DREHER, Ingeborg** [DE/DE]; Gladbacher Strasse 10, 40219 Düsseldorf (DE). **MOLL, Thomas** [DE/US]; 10832 Scripps Ranch Boulevard #308, San Diego, CA 92131 (US). **ZAHN, Stefanie** [DE/DE]; Herbrüggenstrasse 155, 45359 Essen (DE).

(74) Agent: **BÖSL, Raphael**; Isenbruck Bösl Hörschler Wichmann Huhn, Prinzregentenstrasse 68, 81675 München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
1 June 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXPRESSION SYSTEM FOR PREPARING IL-15/Fc FUSION PROTEINS AND ITS USE

(57) Abstract: The invention relates to an expression system containing one or more nucleic acid(s) comprising at least one nucleic acid for an interleukin 15/Fc (IL- 15/Fc) fusion protein, at least one promotor, at least one nucleic acid for a CD5 leader and, where appropriate, at least one nucleic acid for a selectable marker gene; to a nucleic acid comprising the components of the said expression system and to a host cell containing the expression system or the nucleic acid. Furthermore, the invention relates to a process for preparing an IL-15/Fc fusion protein, using the expression system, and to the use of the expression system, the nucleic acid, the host cell or the CD5 leader for expression in host cells.



WO 2005/100395 A3